



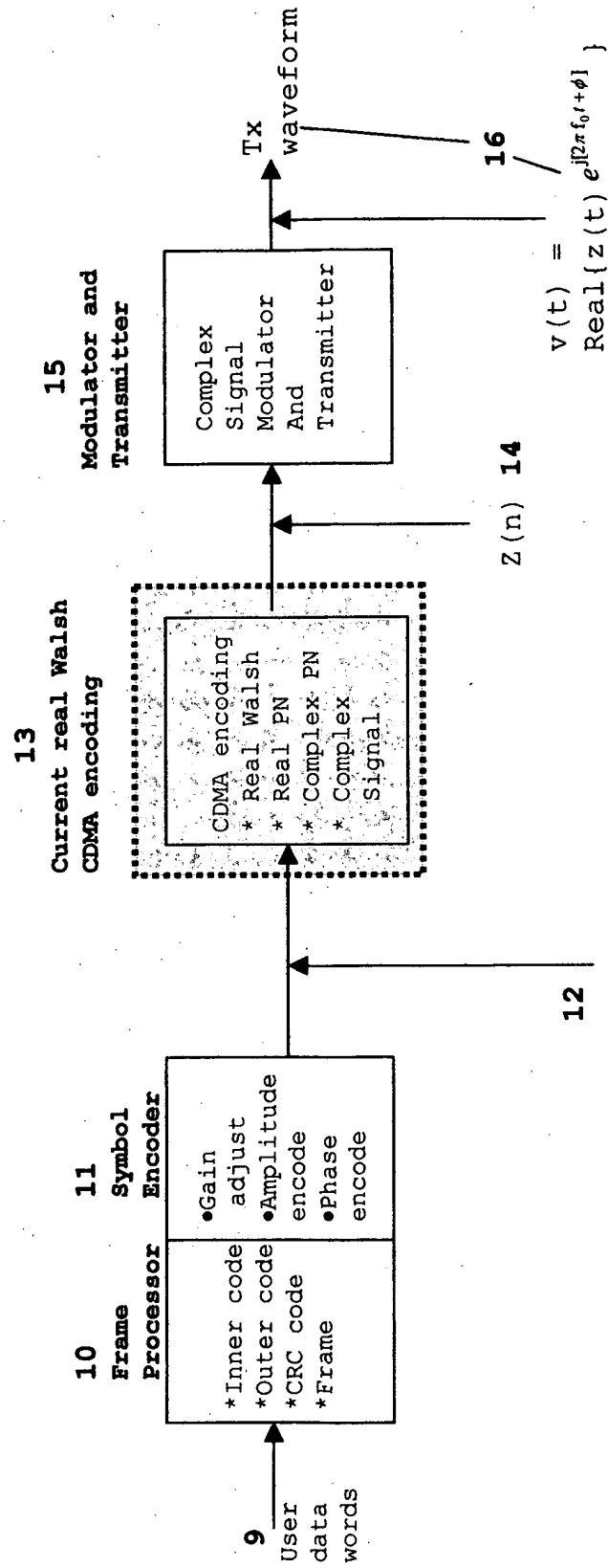
APPLICATION NO. 09/826,117

INVENTION: Hybrid Walsh Codes for CDMA

INVENTOR: Urbain A. von der Embse

DRAWINGS AND PERFORMANCE DATA

FIG. 1 CDMA Transmitter: Block Diagram



User data symbols

$$= \{Z(u)\} = R(u_R) + jI(u_I)$$

For complex data symbols $u = u_R + j u_I$

For real data symbols $u = u_I$ for counting the user pairs (u_R, u_I)

FIG. 2 Real Walsh CDMA Encoding

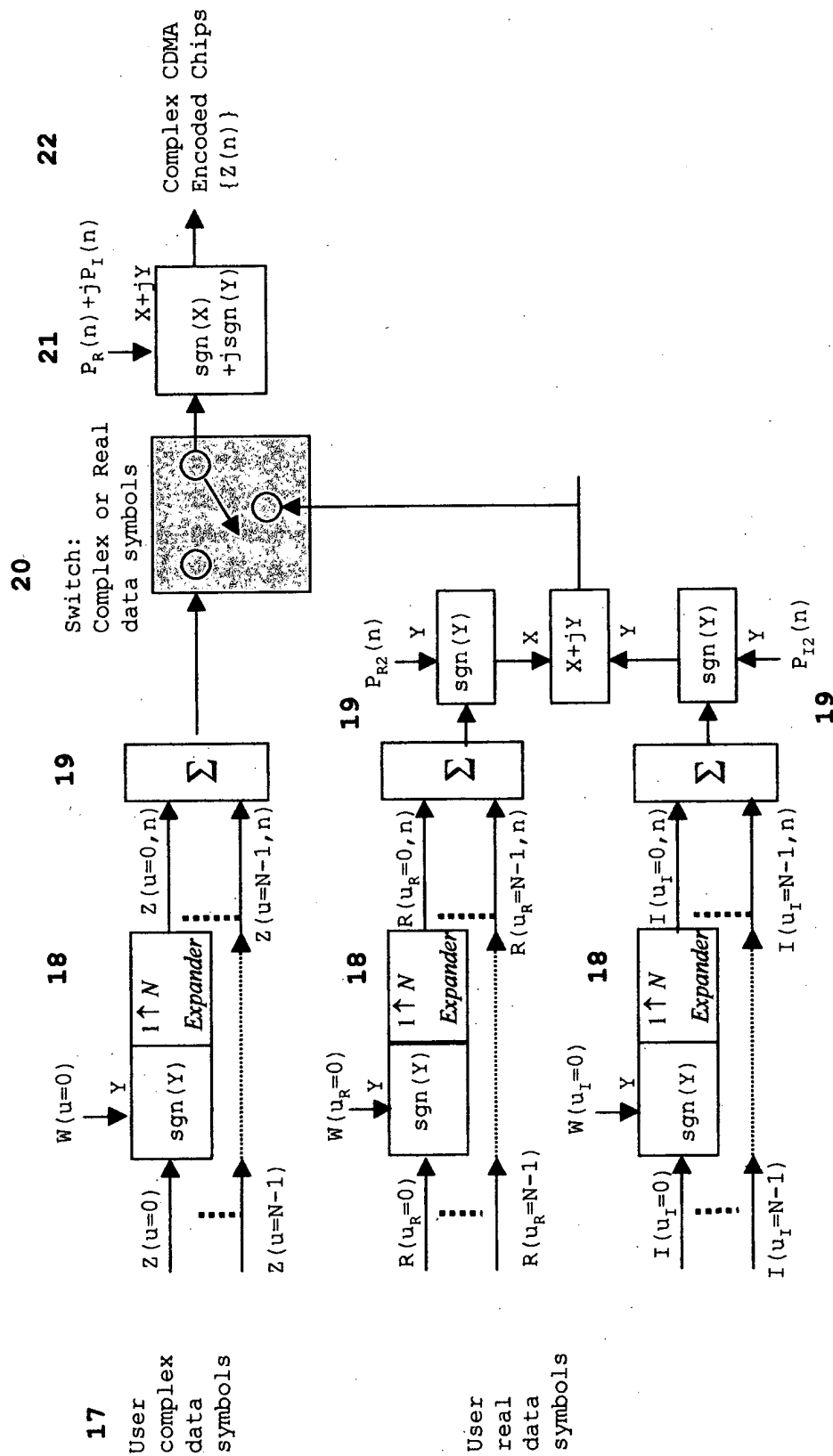


FIG. 2 Real Walsh CDMA Encoding

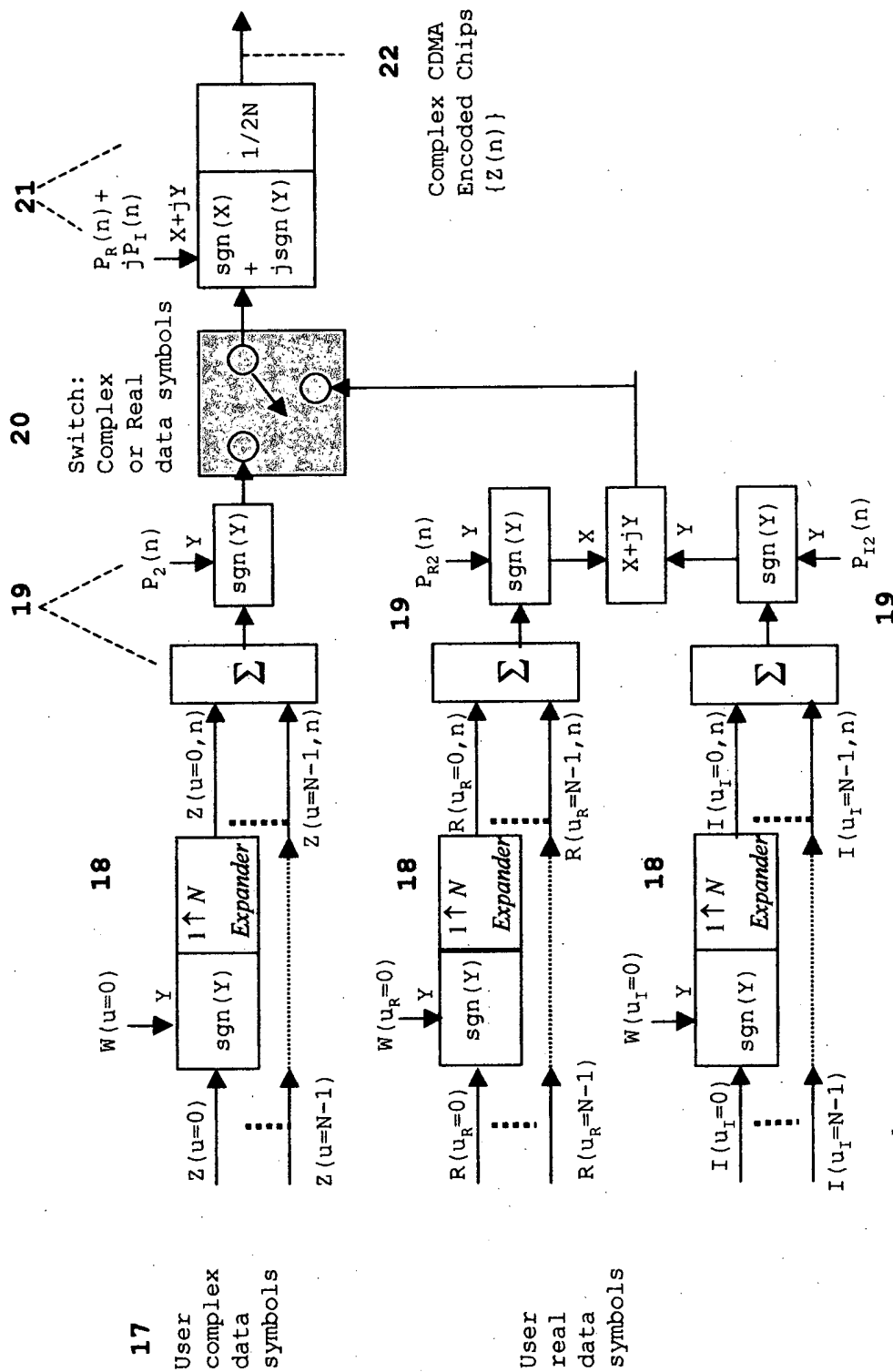


FIG. 3 CDMA Receiver Block Diagram

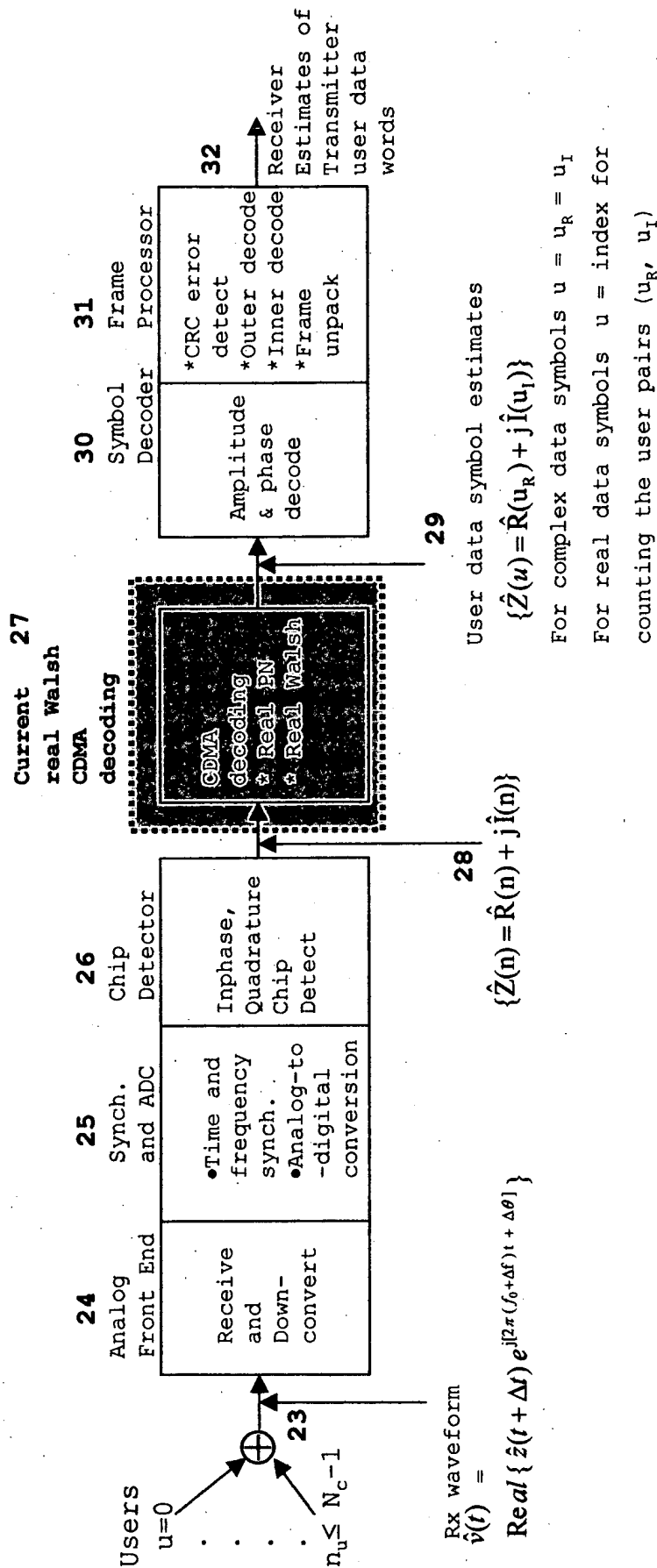


FIG. 3 CDMA Receiver Block Diagram

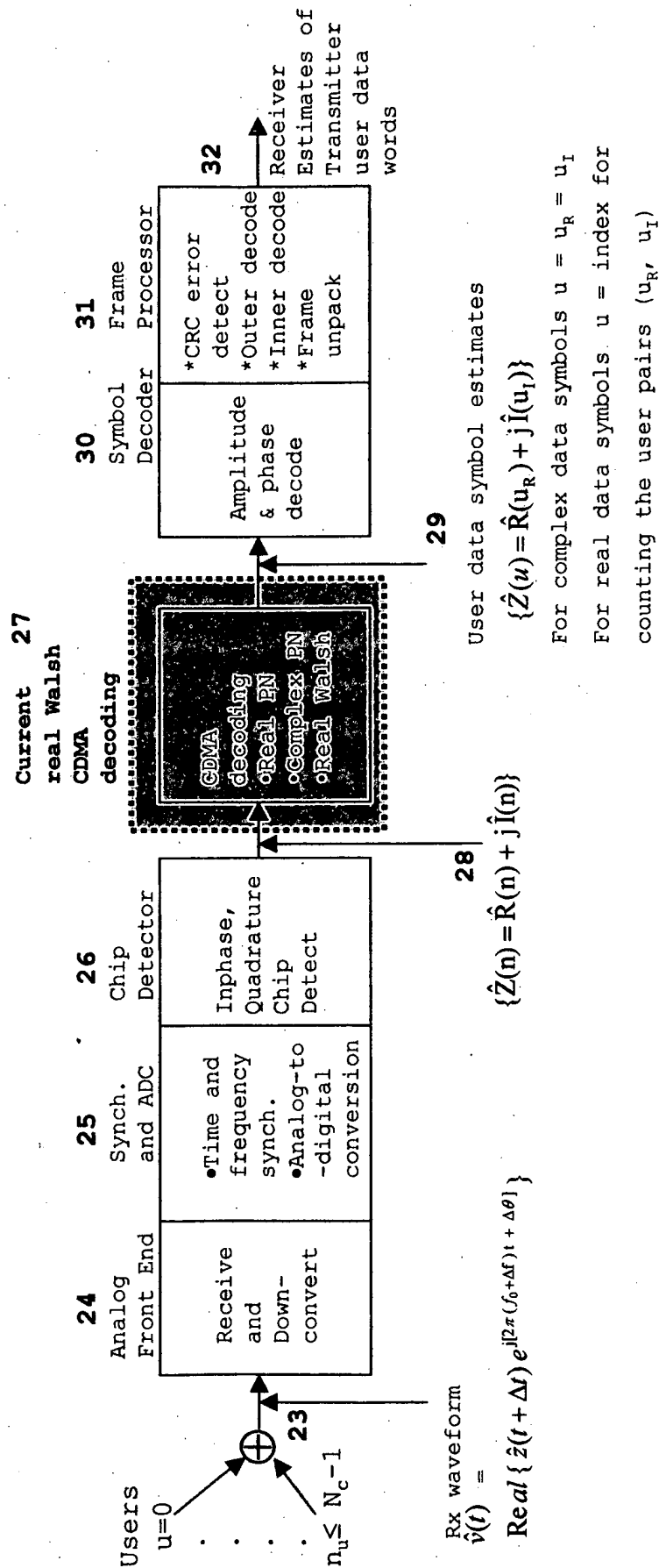


FIG. 4 Real Walsh CDMA Decoding

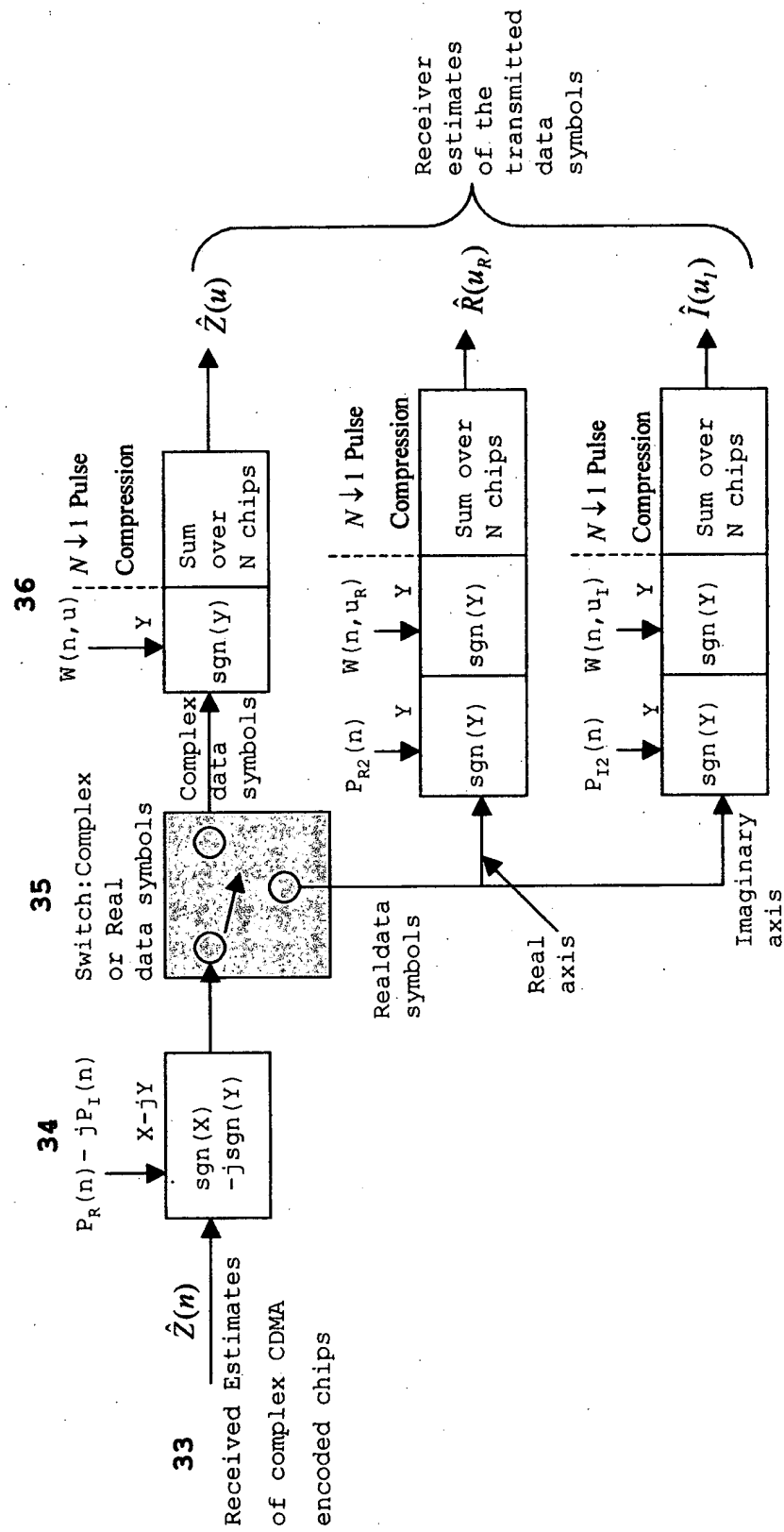
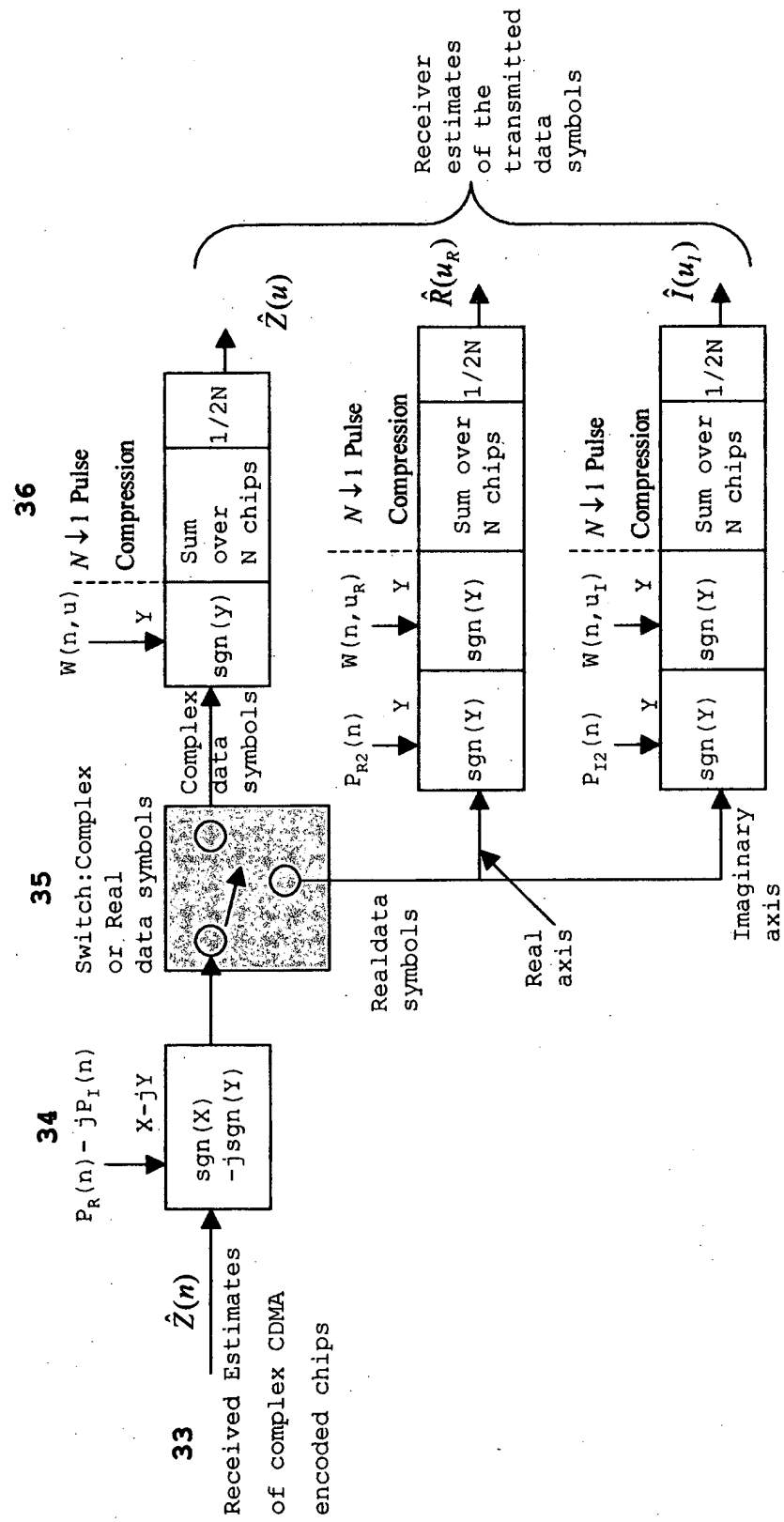


FIG. 4 Real Walsh CDMA Decoding



**FIG. 5 Correlation of Fourier Codes
with DFT Codes for N=32**

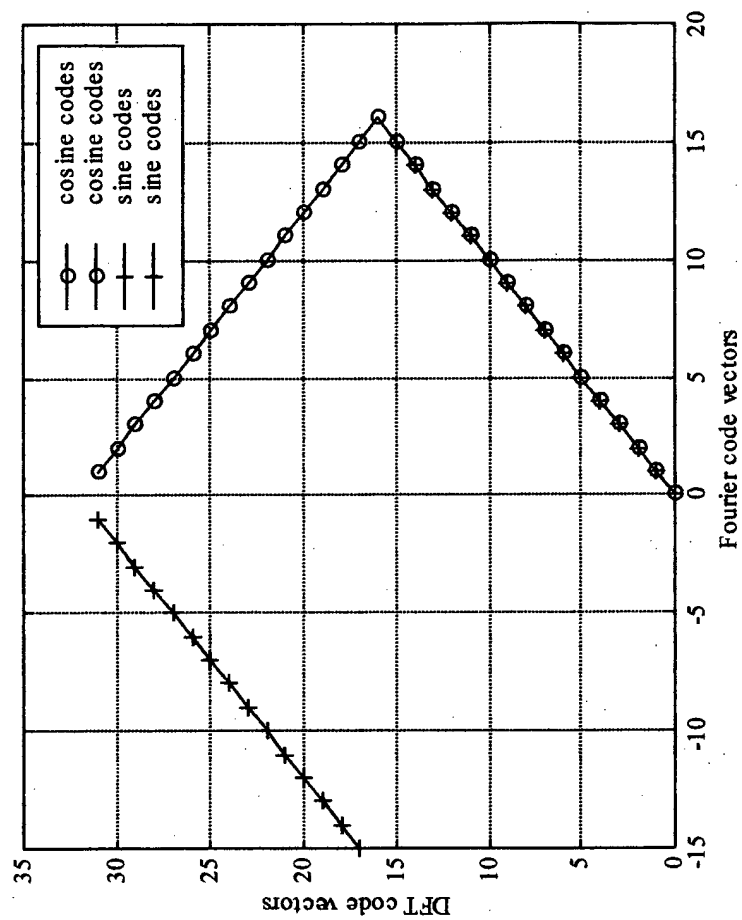


FIG. 6 Complex Walsh CDMA Encoding

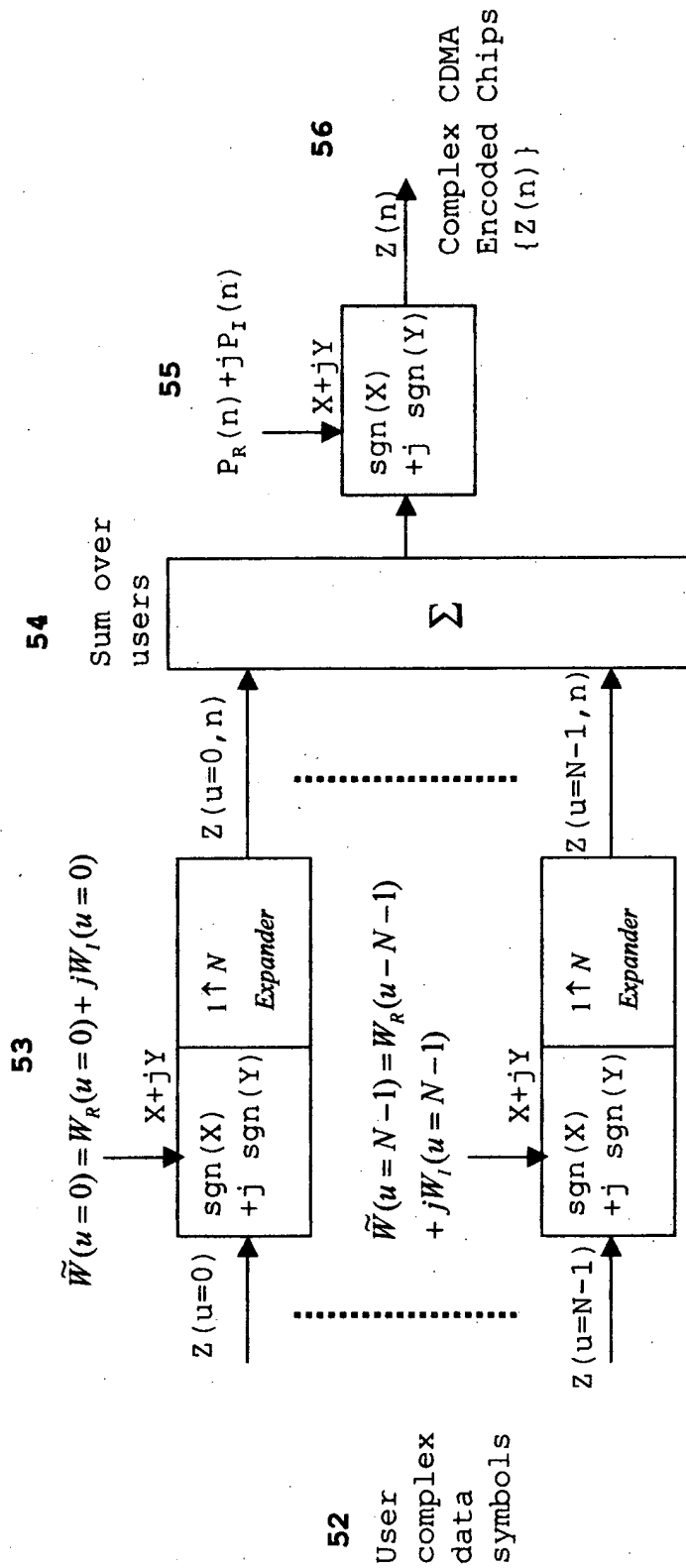


FIG. 6 Hybrid Walsh CDMA Encoding

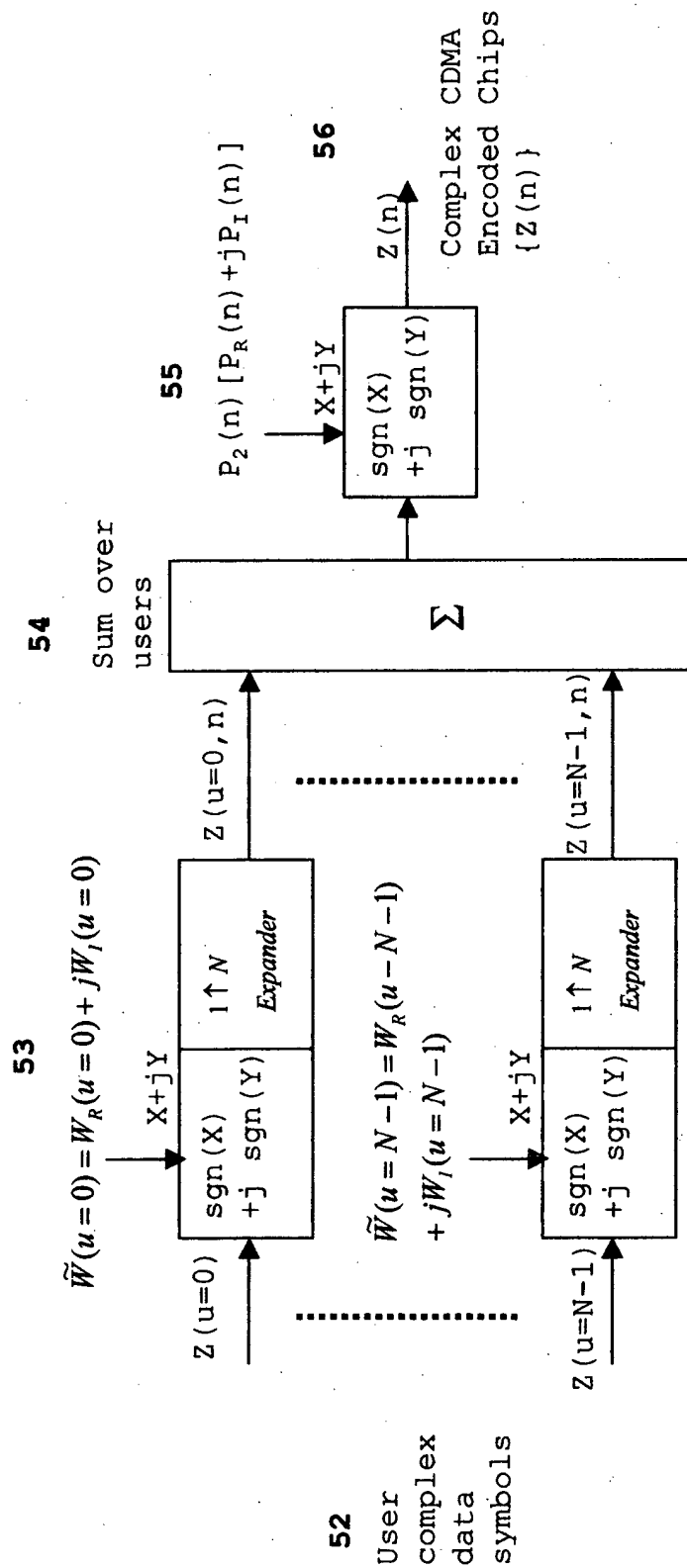
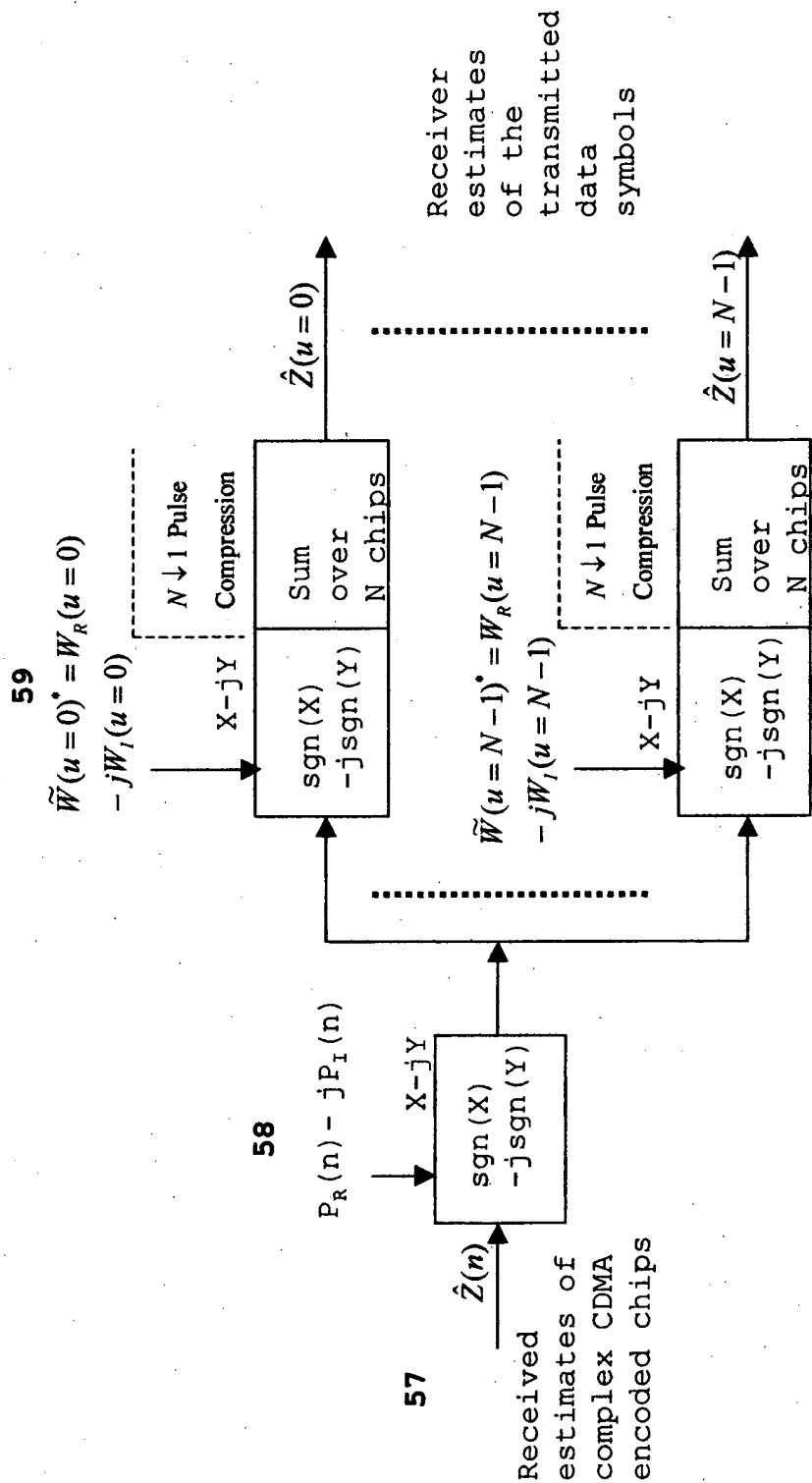


FIG. 7 Complex Walsh CDMA Decoding



REPLACEMENT SHEET

FIG. 7 Hybrid Walsh CDMA Decoding

